A SUMMARY OF THE SPHINGIDAE TAKEN AT THE ARCHBOLD BIOLOGICAL STATION HIGHLAND COUNTY, FLORIDA[1]

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The majority of the records were taken from specimens collected at light traps operated practically every night from the end of November to the middle of May at the Archbold Biological Station. The species were obtained over a period of 5 years from 1968 to and including 1972, with additional records by Kimball (1965). Thirty species have been definitely determined and recorded.

The principal larval food plants, especially those common in Florida, are listed for each species. Many select *Vitaceae* including grape, virginia creeper and *Ampelopsis.* Several prefer Convolvulaceae including tomato, potato, morning glory and related species. Others are more specialized in their selection of food. *Lapara coniferarum* Smith, the most common species taken at the Archbold Biological Station, feeds only on pine. Another common species *Dolba hyloeus* (Drury) selects chiefly paw-paw and holly. *Xylophanes tersa* also a common species feeds on several unrelated hosts; *Spermacoce, Manettia,* and *Pentas. Sphinx gordius* Cramer, collected somewhat frequently, feeds on carolina rose, prairie crab apple, blueberry and others.

Seven species of Sphingidae not included in Table 1, *Erinnyis lassauxii* Boisdv., *Eumorpha labruscae* (Linn.), *Eumorpha vitis* (Linn.), *Paonis myops* (Smith), *Xylophanes pluto* (Fab.), *Ceratomia amyntor* (Geyer), and *Smerinthus jamaicensis* judging from records by Hodges (1971) might be expected in the Archbold Biological Station area.

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SPHINGIDAE TAKEN AT THE ARCHBOLD BIOLOGICAL STATION

Species	Number specimens taken from light traps Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Total	Additions by Kimball 1965	Principal larval food plants
Agrius cingulatus (Fab.)	0	0	0	0	0	4	1	5	June, Sept.	Sweet potato, Morning glory
Amphion nessus (Cramer)	0	0	0	1	0	2	0	3		Grape & Vitaceae
Ceratomia cataelpae Boisd.	0	0	0	0	0	0	0	0	Sept.	Catalpa
Ceratomia undulosa (Wlk.)	0	0	0	0	0	1	0	1		Ash, privet, oak
Cocytius antaeus (Drury)	0	0	0	0	0	9	0	9		Custard apple
Cressonia juglandis (Smith)	0	0	0	1	2	1	0	4		Hickory
Deidamia inscripta (Harris)	0	0	1	1	1	0	0	3		Grape & Vitaceae
Darapsa myron (Cramer)	0	0	0	2	9	10	4	24	July,Sept,Oct.	Grape & Vitaceae
Darapsa versicolor (Harris)	0	0	0	0	1	0	0	1		Hydrangea, Cephalanthus
Dolba hyloeus (Drury)	1	0	3	11	18	1	0	34		Pawpaw, Holly
Erinnyis alope(Drury)	2	0	3	0	0	0	2	7		Papaya, Alamanda
Erinnyis ello (Linn.)	0	1	0	0	0	0	1	2	Aug.	Poinsettia, guava
Erinnyis obscura (Fab.)	4	3	6	6	0	1	0	20	July,Aug,Sept.	Climbing milkweed
Enyo lugubris (Linn.)	1	2	0	2	0	3	2	10	July,Oct.	Grape & Vitaceae

Sphingidae taken at the Archbold Biological Station (Continued)

Species	Number specimens taken from light traps Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Total	Additions by Kimball 1965	Principal larval food plants
Eumorpha achemon (Drury)	0	0	0	0	4	1	0	5	July	Grape & Vitaceae
Eumorpha fasciata (Sulz.)	1	0	0	1	1	4	0	7	July,Aug,Sept.	Primrose
Eumorpha pandorus (Hubn.)	0	0	0	0	1	0	0	1		Grape & Vitaceae
Hemaris gracilis (G. & R.)	0	0	0	0	1	0	0	1		Laurel
Hemaris thysbe (Fab.)	0	0	0	0	0	1	1	2	July	Viburnum, hawthorn, cherry
Hyles lineata (Fab.)	0	0	0	0	2	1	1	4		Portulaca, Fuchsia
Lapara coniferarum (Smith)	3	2	8	11	17	28	20	88	July,Oct.	Pine
Manduca quinquemaculata (Haw.)	0	1	0	1	0	1	1	4		Potato, tomato
Manduca rustica (Fab.)	1	0	0	0	0	0	2	3	June	Bignonia, jasmine
Manduca sexta (Linn)	0	0	1	1	0	2	6	10	Sept.	Potato, tomato
Pachylia ficus (Linn.)	0	0	0	0	1	0	0	1		Fig
Paonias exaecatus (Smith)	0	0	0	3	1	0	0	4	Sept.	Willow, oak
Paratrea plebeja (Fab.)	1	0	0	0	0	1	0	2	Sept.	Passion flower, Trumpet creeper
Pseudosphinx tetrio (Linn.)	0	0	0	0	1	0	0	1		Frangipana, jasmine
Sphinx gordius Cramer	0	0	1	1	19	5	0	26		Carolina rose,prarie crab apple
Xylophanes tersa (Linn)	1	3	4	7	12	16	1	44	July,Sept,Oct.	Pentas, Manettia, Spermacoce

REFERENCES

Hodges, R. W. 1971 The Moths of America North of Mexico, including Greenland. Fasc. 21 158 pp., 16 Plates.

Kimball, C. P. 1965 Arthropods of Florida and neighboring land areas, The Lepidoptera of Florida, An annotated checklist, Florida Department Agriculture, Vol. 1:1-363.

ABSTRACT.—Thirty species of Sphingidae have been taken at the Archbold Biological Station well representing the species that occur in south central Florida. The principal food plants, especially those common in Florida, are listed for each species. Seven other species are included that might be expected in the same area.—S. W. Frost, Frost Entomological Museum, Penns Ivania State University, University Park, Pa.

THE BEE GENUS *PROTERIADES* IN SOUTH DAKOTA (HYMENOPTERA:MEGACHILIDAE)[1]

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The genus *Proteriades* is a small specialized genus of bees belonging in the family Megachilidae. Species of *Proteriades* are all restricted to plants of the genus *Crypthantha* in their pollen-collecting habits and the bees' mouthparts are modified by possessing hooked hairs in order to facilitate extracting pollen from the tubular flowers. Previously these bees were known to occur only in California, except *Proteriades incanescens* (Cockerell) whose range was known to extend into northern Arizona and southern Nevada (Timberlake and Michener, 1950).

Two females of *Proteriades incanescens* were discovered among bees collected during a pollination study of plants in the Badlands National Monument of South Dakota by Sue Wolf under the direction of Dr. Lutz J. Bayer of the University of Wisconsin in Madison. The bees were submitted to the author for identification. Since this record involves a straight-line extension of known range of about 800 miles, it was deemed worthy of mention in print. Perhaps collectors will be stimulated to look for these bees more assiduously, especially in the drier western prairie areas or along the eastern flanks of the Rocky Mountains and across New Mexico and Arizona.

The two South Dakota specimens resemble most closely specimens from southern Nevada and Mono County, California, and are referable to the subspecies *P. incanescens nevadensis* Timberlake and Michener. The South Dakota specimens were taken in Pennington County within the Sheep Mountain section of the Badlands National Monument at 11:20 am on June 4, 1972, collecting pollen and nectar from flowers of *Cryptantha bradburiana* Payson.

LITERATURE CITED

Timberlake, P. H. and C. D. Michener. 1950. The bees of the genus Proteriades (Hymenoptera, Megachilidae). The Univ. Kansas Sci. Bul., 33:387-440.

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